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ABSTRACT

This study compared children's dependence on situational cues by a model to their reliance on the general affective valence of the model, in order to assess the role of each in determining vicarious changes in preference. Subjects were forty 4-year-olds attending a day care center. Among five toys used in pilot testing, a box of clothespins was rated lowest in attractiveness and thus was selected as the target toy for training. Two measures of each child's toy preference were collected in a pretest: rated comparisons of clothespins versus other toys and timed use of clothespins during free play. The children were assigned to one of four modeling treatments (high model valence, low model valence, high affect, low affect or a control group.) Each treatment consisted of an interaction phase, a modeling phase, and a posttest. Results indicated no difference among experimental groups in pretest scores. Analysis of the posttest measures revealed that the children exposed to the model who displayed a high degree of subjective affect while playing with the clothespins significantly increased the ratings of clothespins and the amount of time spent playing with this toy. The model's rewardingness (valence) failed to exert any effect on either dependent measure, and did not interact with model affectivity. Findings are discussed in terms of the role of classical conditioning and cognitive processes in vicarious learning; and the results are seen as supporting the role of cognitive processing. (Author/SB)

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VICARIOUS CHANGES IN CHILDREN'S PREFERENCES: A REWARD OR A COGNITIVE PHENOMENON?

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It is widely recognized that social factors can vicariously influence the value observers ascribe to stimuli. Over seventy years ago, Thorstein Veblen (1899) directed attention to what he termed "conspicuous consumption." However, in this case, the direction of the influence was reversed. The valence of the stimulus goods increased the prestige of the consumer. It is clear from even a cursory glance at television advertising that social influence techniques are being widely used to promote sales of consumer items.

Usually these results are explained using a reinforcement hypothesis. The model's positive qualities such as his warmth, attractiveness, or association with rewards is said to determine the amount of valence that his choice performance would invest in stimuli. The preferences of a known and appreciated friend would be more influential on a person's value choices than those of a stranger. In support of this position, there is evidence (e.g., Bandura & Huston, 1961; Mischel & Grusec, 1966) that model's who are warm or rewarding are more readily imitated. Thus through classical conditioning, the rewarding qualities of the model become associated with a particular behavior class and environmental stimuli. In this classical conditioning formulation, it is assumed that behavior change results from affective conditioning. Affective reactions tend to be diffuse in

scope and people cannot generally exert much control or selectivity over these "emotion" responses. While vicarious classical conditioning has been amply demonstrated (e.g. Bandura & Rosenthal, 1966), one can still question whether this explanation best accounts for vicarious changes in preference.

From Bandura's (1971) point of view, vicarious learning is a cognitive phenomenon. Rewards don't automatically determine responding but rather serve as cues which must be interpreted along with other information. Mischel (1968, 1973) has cited an impressive amount of evidence that situation-specific factors such as subtle social and nonsocial cues play a major role in determing behavior. This sort of situational flexibility is consistent with Bandura's emphasis on cognitive processes. In support of this general thesis, a recent review of the literature on vicarious rule learning (Zimmerman & Rosenthal, 1974) has found that imitation is usually selective (often conscious) process by which observers combine aspects of the performance of models with responses already present in their repertoire. It was reported that subtle changes in environmental context such as the presence of a particular person, brief instructions, or nonsocial cues often influenced the timing, the amount, and the form of an observer's imitative performance.

In the present study, children's dependence on situational cues by a model will be compared to their reliance on the general affective valence of the model. These cues were specific emotional reactions of the model to a particular toy with which he was playing. It is conceivable that both explanations may be partially correct, and perhaps the model's valence and affective cues may interact together in determing vicarious

changes in preference. Thus, these two variables were studied in a factorial design to determine the relative contribution of each.

Forty four-year-olds attending a day care center in Tucson, Arizona serve as subjects. Two adult males in their twenties served as the model and experimenter. Each child was escorted individually to a separate room at the center for testing and training. Five toys were given to the child: alphabet blocks, a storybook, crayons and paper, a top, a toy car, and a box of 50 clothespins. During pilot testing, the clothespins were consistently rated the lowest in attractiveness, and thus clothespins were selected as the target toy for training. Two measures of toy preference were collected: rated comparisons of clothespins versus all other toys and the child's timed use of clothespins during free play. So upon entering the room, the child was given a five minute opportunity to play with whatever toy he (or she) preferred, and then was individually tested to determine his ratings of each toy. The children were then randomly assigned to one of four modeling treatments or a control group. In the high valence treatment, the model was brought into the room, and the experimenter left for a five minute period of time. The model interacted warmly with the child while putting together a puzzle. At the end of the session, the model told the child how much he liked him and gave the youngster a piece of candy. In the low valence condition, the model completely ignored the child and read the newspaper during the experimenter's absence.

After this structured interaction phase, the experimenter

returned and engaged the child in a bean drop type of game. This task was introduced to occupy the child during the modeling phase and to make the treatment seem as "natural" as possible. The child was situated across the table from the model so he could view him easily but was not instructed to watch or imitate the model. In the high affect condition, the model walked over to the toys on a shelf and exclaimed how much he liked clothespins, picked them up and brought them to the table to play. During play, the model's speech, actions, and facial expressions indicated that he liked playing with clothespins. After a five minute interval, the model returned the clothespins to the shelf, exclaimed his liking of them, and left the room. For children in the low affect condition, the model chose the clothespins, commented about them blandly, and was generally reserved in his facial reactions during play.

After completion of the modeling phase, the posttest phase began, and the experimenter obtained a second rating of the toys and the child's use of clothespins during another free play period. Children assigned to the no model control group were pretested and posttest identically to youngsters in the modeling conditions. During the structured interaction phase, the control group youngsters were exposed to the low valenced model. During the modeling phase, the model continued to read the newspaper at the table while the experimenter played the bean drop game with the child.

The results indicated that no differences among experimental groups in pretest score on either the rating or free play measures. Analysis of the posttest measures revealed that the children who were exposed to the model who displayed

a high degree of affect while playing with clothespins significantly increased the ratings of clothespins and the amount of time spent playing with this toy. The model's rewardingness failed to exert any effect on either dependent measure, and did not interact with model affectivity.

What do these findings indicated? They suggest that the subjective affect cues displayed by the model during his interactions with clothespins exerted strong effects regardless of whether the model was a highly valenced person or not. It appears that children do not blindly imitate a model simply because he is a valued person but that social contextual cues which are situation-specific do substantially modulate the social impact of the model's performance. The fact that situational cues such as perceived affect outweighed the effects of a child's prior learning experience with the model is difficult to reconcile with any simple classical conditioning model. This finding is compatible with social learning theorizing. This conception of vicarious learning is very different from one which depicts observers as rotely copying the behavior of a model simply because he is preferred form some reason e.g., for having more power, similar characteristics to the observer, or a warm demeanor) and instead posits a far greater role for cognitive processes in vicarious learning.

The failure to find even a slight model valence effect was unexpected although previous research on this topic has been equivocal. There appears to have been as many studies in which model valence did not create effects (Aronfreed, 1964; Grusec & Skubiski, 1970; Rosenhan & White, 1967; Stein & Wright, 1964) as the studies in which such effects were reported (Ban-

dura & Huston, 1961; Mischel & Grusec, 1966; Mussen & Parker, 1965). However, even in those studies wherein model valence effects were reported, these effects were delimited to a subset of the response classes studied such as incidental responses (Bandura & Huston, 1961; Mussen & Parker, 1965) or valenced responses such as aversive behavior (Mischel & Grusec, 1966). Thus there appears to be a high deree of response selectivity even in these studies.

Two final caveats. It could be argued that perhaps more time between the model and child was necessary before model valence would exert effects. This may be true but since both treatments were designed to be optimal and both were balanced for time length, it seems that a fair comparison of their relative effectiveness was made. Finally, it could be argued that a reward approach for explaining vicarious learning doesn't rule out highly selective responding. To a degree this is true, but certainly each time an additional situational qualification is added, the simple elegance of a classical conditioning model becomes further compromised. Thus while you can explain the model's affective cues results using a conditioning approach, one would not readily predict them. Conversely, the most obvious explanation for vicarious learning based on valence was not supported. In conclusion, while this study did not provide a definitive test of the need for considering cognitive processes, its results were consistent with the assumption that vicarious learning is a selective interpretive process.

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